

INTERNATIONAL SEARCH REPORT

 International Application No
 PCT/IB2004/052232

 A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 H02M3/335

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

 Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 H02M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5 528 481 A (CALDEIRA PAULO ET AL) 18 June 1996 (1996-06-18) column 2, lines 43-64 figure 1	1-11
Y	PATENT ABSTRACTS OF JAPAN vol. 1998, no. 06, 30 April 1998 (1998-04-30) & JP 10 052041 A (MATSUSHITA ELECTRIC IND CO LTD), 20 February 1998 (1998-02-20) abstract	1-11
Y	PATENT ABSTRACTS OF JAPAN vol. 2002, no. 07, 3 July 2002 (2002-07-03) & JP 2002 084753 A (MATSUSHITA ELECTRIC IND CO LTD), 22 March 2002 (2002-03-22) abstract	1-11

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

29 December 2004

Date of mailing of the international search report

13/01/2005

Name and mailing address of the ISA

 European Patent Office, P.B. 5818 Patentlaan 2
 NL - 2280 HV Rijswijk
 Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
 Fax: (+31-70) 340-3016

Authorized officer

Roider, A

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/052232

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 5528481	A	18-06-1996	NONE	
JP 10052041	A	20-02-1998	JP 3399242 B2	21-04-2003
JP 2002084753	A	22-03-2002	JP 3480438 B2	22-12-2003
			US 2002118551 A1	29-08-2002